

## **REMARKS**

In view of the following reasoning for allowance, the applicants hereby respectfully request further examination and reconsideration of the subject application.

### **A. Examiner Interview**

On April 3, 2008, Examiner Ali Bayat and applicants' representative Katrina Lyon conducted an Examiner Interview to discuss proposed claim amendments faxed to the Examiner on April 2, 2008. It was agreed that the amendments should put the application in condition for allowance, pending any new references found in an updated search.

### **B. Claim Rejection Under 35 USC 101 of Claims 18-29**

Claims 18-29 were rejected under 35 USC §101 as being directed to non-statutory subject matter. More particularly, the Office Action stated that a "computer-readable medium" is non-statutory. While the applicants do not admit to and do not believe that the aforementioned "computer-readable medium" is non-statutory subject matter, Claim 18 has been amended per the Examiner's suggestions in order to overcome this rejection. Accordingly, it is kindly requested that the rejection of the Claims 18-29 be reconsidered.

### **C. The 35 USC 103 Rejection of Claims 1-3.**

Claims 1-3 were rejected under 35 USC 103(a) as being unpatentable over Mojsilovic et al. (U.S. Publication No. 2003/00195883) in view of Okada et al. (US 2005/00135663). The Examiner contended that Mojsilovic teaches all the elements of the applicants' claims but does not teach the applicant's claimed anisotropic kernel. The Examiner contended, however, that Okada teaches this feature. The applicants respectfully traverse this contention of obviousness.

In order to deem the applicants' claimed invention unpatentable under 35 USC 103, a prima facie showing of obviousness must be made. To make a prima facie showing of obviousness, all of the claimed elements of an applicants' invention must be considered, especially when they are missing from the prior art. If a claimed element is not taught in the prior art and has advantages not appreciated by the prior art, then no prima facie case of obviousness exists. The Federal Circuit court has stated that it was error not to distinguish claims over a combination of prior art references where a material limitation in the claimed system and its purpose was not taught therein (*In Re Fine*, 837 F.2d 107, 5 USPQ2d 1596 (Fed. Cir. 1988)).

The applicants' claimed invention employs a technique for segmenting image data by "inputting an image; segmenting said image using a mean shift segmentation technique employing anisotropic kernels; wherein segmenting said image comprises: initializing kernel data; for each of a set of feature points, **determining an anisotropic kernel with a spatial component and a related color component; associating a mean shift point with every feature point and initializing said mean shift point to coincide with that feature point; updating mean shift points by iterative anisotropic mean shift updates; and merging vectors associated with feature points that are approximately the same to produce homogeneous color regions. "**

In contrast, Mijilovic teaches a method for determining image similarity based on the semantic meaning of images. The method includes deriving a plurality of semantic categories for representing important semantic cues in images, where each semantic category is modeled through a combination of perceptual features that define the semantics of that category and that discriminate that category from other categories; for each semantic category, forming a set of the perceptual features comprising required features and frequently occurring features; comparing an image to the semantic categories; and classifying said image as belonging to one of the semantic categories if all of the required features and at least one of the frequently occurring features for that semantic category are present in the image.

But Mijilovic does not teach the applicants' claimed **"determining an anisotropic kernel with a spatial component and a related color component; associating a mean shift point with every feature point and initializing said mean shift point to coincide with that feature point; updating mean shift points by iterative anisotropic mean shift updates; and merging vectors associated with feature points that are approximately the same to produce homogeneous color regions"**.

Okada teaches a method for determining a structure in volumetric data that includes determining an anisotropic scale-space for a local region around a given spatial local maximum, determining L-normalized scale-space derivatives in the anisotropic scale-space, and determining the presence of noise in the volumetric data. Upon determining noise in the volumetric data it determines the structure by a most-stable-over-scales determination, and upon determining noise below a desirable level, determines the structure by one of the most-stable-over-scales determination and a maximum-over-scales determination. (Abstract) But Okada does not teach the applicants' claimed **"determining an anisotropic kernel with a spatial component and a related color component; associating a mean shift point with every feature point and initializing said mean shift point to coincide with that feature point; updating mean shift points by iterative anisotropic mean shift updates; and merging vectors associated with feature points that are approximately the same to produce homogeneous color regions."**

Neither Mojsilovic nor Okada teach the applicants' claimed **"determining an anisotropic kernel with a spatial component and a related color component; associating a mean shift point with every feature point and initializing said mean shift point to coincide with that feature point; updating mean shift points by iterative anisotropic mean shift updates; and merging vectors associated with feature points that are approximately the same to produce homogeneous color regions."**

Additionally, the Mojsilovic and Okada references do not teach the advantageous features of the applicants' claimed invention such as being able to efficiently segment an image using the applicants' claimed technique. Accordingly, no prima facie case of obviousness has been established in accordance with the holding of *In Re Fine*. This lack of prima facie showing of obviousness means that the rejected claims are patentable under 35 USC 103 over Mojsilovic in view of Okada. As such, it is respectfully requested that Claims 1-3 be allowed based on the following exemplary claim language:

**"determining an anisotropic kernel with a spatial component and a related color component; associating a mean shift point with every feature point and initializing said mean shift point to coincide with that feature point; updating mean shift points by iterative anisotropic mean shift updates; and merging vectors associated with feature points that are approximately the same to produce homogeneous color regions "**

**D. Allowability of Claims 4-13.**

The Office Action stated that Claims 4-13 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim. In response, the applicants have amended Claim 1 to include the limitations of Claim 4, cancelled Claim 4 and amended the remaining claims of this claim set to ensure proper dependency. The applicants believe that these amendments make Claims 1-3 and 5-13 patentable. Reconsideration of these claims is respectfully requested.

**E. Allowance of Claims 14-17.**

The applicants gratefully acknowledge the allowance of Claims 14-17.

F. Summary.

In summary, it is believed that Claims 1-3 and 5-29 are in condition for allowance. Allowance of these claims at an early date is courteously solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Katrina A. Lyon", written over the printed name.

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